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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,342	03/10/2004	Akiko Hirao	08411.0002	2005

22852 7590 02/09/2007  
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901 NEW YORK AVENUE, NW  
WASHINGTON, DC 20001-4413

EXAMINER
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PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/796,342	HIRAO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Aristotelis M. Psitos	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicants' response of 12/6/06 has been considered with the following results.

Claims 10-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12/6/06.

#### ***Information Disclosure Statement***

The IDS documents filed with the application, 9/23/04 and 10/7/04 have been reviewed. The examiner cannot understand the citations found on the documents dated 9/23/04 and 10/7/04 since they in themselves are not prior art. Nevertheless if applicants' desire to have these documents "printed" on the face of any patent issued from this application, confirmation of such is respectfully requested.

#### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

#### ***Claim Objections***

Claim 9 is a substantial duplicate of claim 1. The examiner cannot ascertain any patentable distinction between these claims. Appropriate correction is respectfully required.

Claim 8 is a duplicate of claim 1. Cancellation of one of these claims is respectfully required. The examiner recognizes the phrase "... a part of the recording layer ..." in claim 8, but such does not patentable define/distinguish over claims 1 or 9.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 2,3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In particular, these claims attempt to further define the optical density of the recording medium; however, how such limitations arise from the parent claim is not clear.

The examiner interprets the optical density limitations to be a desired result that must inherent flow/follow from the structure claimed in all following rejections, else these limitations are a result of non-recited specifics. The examiner cannot interject/drawn into the claims, structure from the disclosure.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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1. Claims 1-9,13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Horimai et al (cited prior art by applicants'), or alternatively WO99/44195 (this document is not being provided rather its US equivalent document 7130092) and either further considered with Moerner et al.

As noted in Horimai et al, with respect to the description of figure 27, a holographic record medium having the structural components as recited is depicted.

Alternatively the WO document – see figures 41+ in the corresponding US equivalent document also depicts such a structural record medium.

Although not specified as to what the holographic material is, the reference to Moerner et al discloses the ability/ use of appropriate materials for optical (holographic) records.

It would have been obvious to modify the base system of Horimai et al with the above teachings from Moerner et al, motivation is to use existing materials as the recording layer in Horimai et al for their desired properties

With respect to the limitations as recited in claim 1:

a) lines 6-8 , such are inherent present, i.e., when a hologram is recorded such limitations are present in the above combination of references.

b) lines 10-12, the optical density appropriately decreases. The examiner interprets this as a desired inherent result of the recording structure as defined by the claims. And as such structure has been met by the above combination of references, must be present as well.

Since claim 8 is a duplicate of claim 1, it is also met for the reasons stated above.

With respect to claim 4, such is merely a mathematical expression defining the optical density in relationship to various system parameters. These system parameters, i.e., optical density of the surface, refractive index of the recording layer, numerical aperture of a lens, spot size radius, and distance from the light incident surface MUST exist. Hence, the description merely describes what is already present.

With respect to claim 5, the appropriate groove structure is present in the above combined references. With respect to the remaining limitations of claim 5, they have been addressed with respect to claim 4.

With respect to claims 6 and 7, such limitations are inherently present.

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Claim 9, is met – see the discussion above with respect to claim 1.

The method limitations of claims 13 and 14 are met when the above record medium is recorded upon since appropriate elements, such a light sources, lens, etc. much be present in order to achieve the desired recording of information upon the record medium.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining prior art cited by the examiner is cited as illustrative of various materials relied upon for their properties used as holographic recording layers. These can be relied upon in place of the Moerner et al reference to meet the above claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-F: 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aristotelis M Psitos  
Primary Examiner  
Art Unit 2627



AMP